



INDIANA CAREER COUNCIL

# Pathways Taskforce

February 24, 2015

# Taskforce Initiatives

1. Identify Priority Occupations and Employment Sectors
2. Career Counseling and Pathway Development
3. Expansion of Work Based Learning
4. Develop and Disseminate Framework for Partnerships/Sector Strategies
5. Integrated/Coordinated Career Pathways from k-12 into the Workforce
6. Success of Completion Bonus and Return-to-Complete Higher Education Programs

# Identifying Priority Sectors

The occupational groupings from the FutureWorks report have been categorized showing wage and demand data. The supply analysis has not yet been taken into account.

- High Wage is set at a salary greater than \$24.51/hr. This is 125% of the statewide mean salary.
- Medium Wage is set between \$14.71/hr and \$24.51/hr.
- Low Wage is set at a salary less than \$14.71/hr. This is 75% of the statewide mean salary.
- High Demand was determined by more than 2500 opportunities.
- Medium Demand was determined by 1000 and 2500 opportunities.
- Low Demand was determined by less than 1000 opportunities.

# FutureWorks Data Categorized (High Demand)

	Low Wage (< \$14.71)	Med Wage (\$14.71 and to \$24.51)	High Wage (> \$24.51)
<b>High Demand (&gt;2500)</b>	Retail Sales Workers (\$10.80, 12717)	Motor Vehicle Operators (\$16.80, 12232)	Health Diagnosing and Treating Practitioners (\$41.91, 13335)
	Information and Record Clerks (\$14.54, 9423)	Supervisors of Sales Workers (\$19.92, 6354)	Management Occupations (28.44, 9423)
	Food and Beverage Serving (\$8.94, 8964)	Health Technologists and Technicians (19.89, 6092)	Business Operations Specialists (\$28.51, 7756)
	Material Movers (\$13.31, 5515)	Other Installation, Maintenance, and Repair Occupations (\$19.88, 5104)	Sales Representatives, Wholesale and Manufacturing (\$32.59, 6657)
	Other Personal Care Service (\$9.62, 4680)	Material Recording, Scheduling, Dispatching, and Distributing (\$14.96, 4626)	Engineers (\$36.91, 5344)
	Supervisors of Food Preparation and Serving Workers (\$14.58, 4351)	Financial Clerks (\$15.68, 3953)	Financial Specialists (\$31.24, 4569)
	Nursing, Psychiatric, and Home Health Aides (\$11.05, 3958)	Secretaries and Administrative Assistants (\$16.41, 3892)	Operations Specialties Managers (\$44.32, 3882)
	Other Office and Administrative Support Workers (\$13.37, 3487)	Other Production Occupations (\$15.22, 3478)	Advertising, Marketing, PR, Sales Managers (\$47.65, 3047)
	Building Cleaning and Pest Control Workers (\$10.72, 3361)	Construction Trades Workers (\$21.75, 3253)	Sales Representatives, Services (\$26.65, 2989)
	Cooks and Food Preparation (\$9.64, 3196)	Preschool, Primary, Secondary, and Special Education Teachers (\$23.53, 2847)	Software Developers, Applications (\$40.62, 2565)
		Metal Workers and Plastic Workers (\$17.53, 2775)	
		Art and Design Workers (\$17.71, 2716)	
		Counselors, Social Workers, and Other Community/Social Service Specialists (\$19.81, 2504)	

# FutureWorks Data Categorized (Medium Demand)

	Low Wage (< \$14.71)	Med Wage (\$14.71 and to \$24.51)	High Wage (> \$24.51)
<b>Medium Demand (1000 to 2500)</b>	Other Healthcare Support Occupations (\$14.32, 2124)	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers (\$18.52, 2177)	Computer Occupations – All Other (\$40.62, 2343)
	Other Protective Service (\$13.11, 1923)	Computer User Support Specialists (\$20.48, 1807)	Postsecondary Teachers (\$32.82, 2053)
	Personal Appearance (\$10.66, 1742)	Other Sales and Related (\$17.38, 1670)	Top Executives (\$53.83, 1972)
	Assemblers and Fabricators (\$14.66, 1715)	Supervisors of Office and Administrative Support (\$23.70, 1615)	Computer Systems Analysts (\$33.46, 1853)
	Other Food Preparation and Serving Related Workers (\$8.57, 1635)	Electrical and Electronic Equipment Mechanics, Installers, and Repairers (\$21.66, 1396)	Supervisors of Production Workers (\$26.12, 1281)
	Other Education, Training, and Library Occupations (\$11.73, 1077)	Entertainers and Performers, Sports and Related Workers (\$18.08, 1211)	Lawyers, Judges, and Related Workers (\$46.25, 1034)
		Media and Communication (\$21.71, 1179)	

# FutureWorks Data Categorized (Low Demand)

	Low Wage (< \$14.71)	Med Wage (\$14.71 and to \$24.51)	High Wage (> \$24.51)
<b>Low Demand (&lt;1000)</b>	Other Teachers and Instructors (\$13.17, 996)	Supervisors of Personal Care and Service (\$16.62, 747)	Drafters, Engineering Technicians, and Mapping Technicians (\$24.94 , 943)
	Grounds Maintenance (\$11.32, 925)	Occupational/Physical Therapist Assistants and Aides (\$22.90, 678)	Network and Computer Systems Administrators (\$31.21, 866)
	Food Processing (\$12.64, 648)	Life, Physical, and Social Science Technicians (\$20.61, 641)	Life Scientists (\$35.31, 820)
	Entertainment Attendants and Related Workers (\$9.33, 624)	Law Enforcement (\$20.26, 603)	Computer Programmers (\$29.70, 749)
	Textile, Apparel, and Furnishings Workers (\$11.38, 487)	Legal Support Workers (\$20.13, 492)	Supervisors of Installation, Maintenance, and Repair (\$28.99, 713)
	Animal Care and Service Workers (\$10.39, 381)	Web Developers (\$23.88, 478)	Database Administrators (\$33.01, 676)
	Other Transportation (\$11.82, 378)	Supervisors of Building/Grounds Cleaning/Maintenance (\$16.41, 380)	Air Transportation (\$41.23, 179)
			Computer Network Support Specialists (\$26.92, 119)
			Rail Transportation(\$28.75, 119)
			Water Transportation (\$26.68, 70)

# FutureWorks Data Categorized (Low Demand continued)

	Low Wage (< \$14.71)	Med Wage (\$14.71 and to \$24.51)	High Wage (> \$24.51)
<b>Low Demand (&lt;1000)</b>	Agricultural Workers (\$11.94, 335)	Religious Workers (\$19.55, 380)	Physical Scientists (\$31.87, 434)
	Woodworkers (\$14.29, 300)	Other Construction and Related (\$18.57, 306)	Social Scientists and Related Workers (\$33.83, 406)
	Helpers, Construction Trades (\$12.84 ,106)	Plant and System Operators (\$23.72, 305)	Other Healthcare Practitioners and Technical Occupations (\$25.49, 391)
	Baggage Porters, Bellhops, and Concierges (\$10.55, 75)	Media and Communication Equipment Workers (\$15.76, 283)	Supervisors of Construction and Extraction Workers (\$27.01, 328)
	Tour and Travel Guides (\$10.92, 47)	Librarians, Curators, and Archivists (\$17.69, 270)	Information Security Analysts (\$35.67, 297)
		Printing and Related (\$16.60, 266)	Computer Network Architects (\$41.96, 283)
		Fire Fighting and Prevention (\$21.42, 173)	Software Developers – Systems Software (\$42.34, 282)
		Extraction Workers (\$20.46, 95)	Mathematical Science (\$33.89, 263)
		Forest, Conservation, and Logging Workers (\$14.78, 52)	Architects, Surveyors, and Cartographers (\$28.80, 188)
			Supervisors of Protective Service Workers (\$24.86, 186)

# Identifying Priority Sectors

Questions for Consideration:

1. How do we define wage and demand priorities?
2. What other factors do we need to consider when prioritizing sectors?
3. How do we prioritize sectors based off current supply/demand but also future projections?
4. When determining priority sectors, how do we take into account emerging technologies and changing skills needed of our workforce?
5. How does technology and changing skills drive pathway development?





# INDIANA CLUSTERS & PATHWAYS

## SPRING 2015 AND BEYOND



# INDIANA CAREER CLUSTERS

Agriculture

Architecture &  
Construction

Arts, AV &  
Communications

Business, Finance  
& Marketing

Education &  
Training

Health Science

Hospitality &  
Human Services

Information  
Technology

Manufacturing  
& Logistics

Public Safety

STEM

Transportation

# HEALTH SCIENCE

## Health Science Cluster- Pathways

Biotechnology (PLTW)

Health Care Specialties

Nursing

Dental

# INFORMATION TECHNOLOGY

## Information Technology Cluster-Pathways

Programming

Networking & Support

NEW! Computer Science

Informatics

# MANUFACTURING & LOGISTICS

## Manufacturing & Logistics Cluster-pathways

Advanced Manufacturing

Electronics

Welding

Machine Technology

Logistics & Supply Chain Management

NEW! Automation & Robotics

# Advanced Manufacturing Pathway Plan

## Indiana College and Career Pathway Plan – State Model

**Cluster: Manufacturing**

**Pathway: Advanced Manufacturing**

### Core 40 with Honors High School Graduation Plan\*

\*This is a SAMPLE plan for schools to use in planning. Course sequences and grade level in which courses are offered may vary according to local policies, practices and resources.

Students should enroll in Indiana Career Explorer, complete interest inventories, and investigate careers in clusters & pathways prior to or during the time they create their individual Pathway Plans.

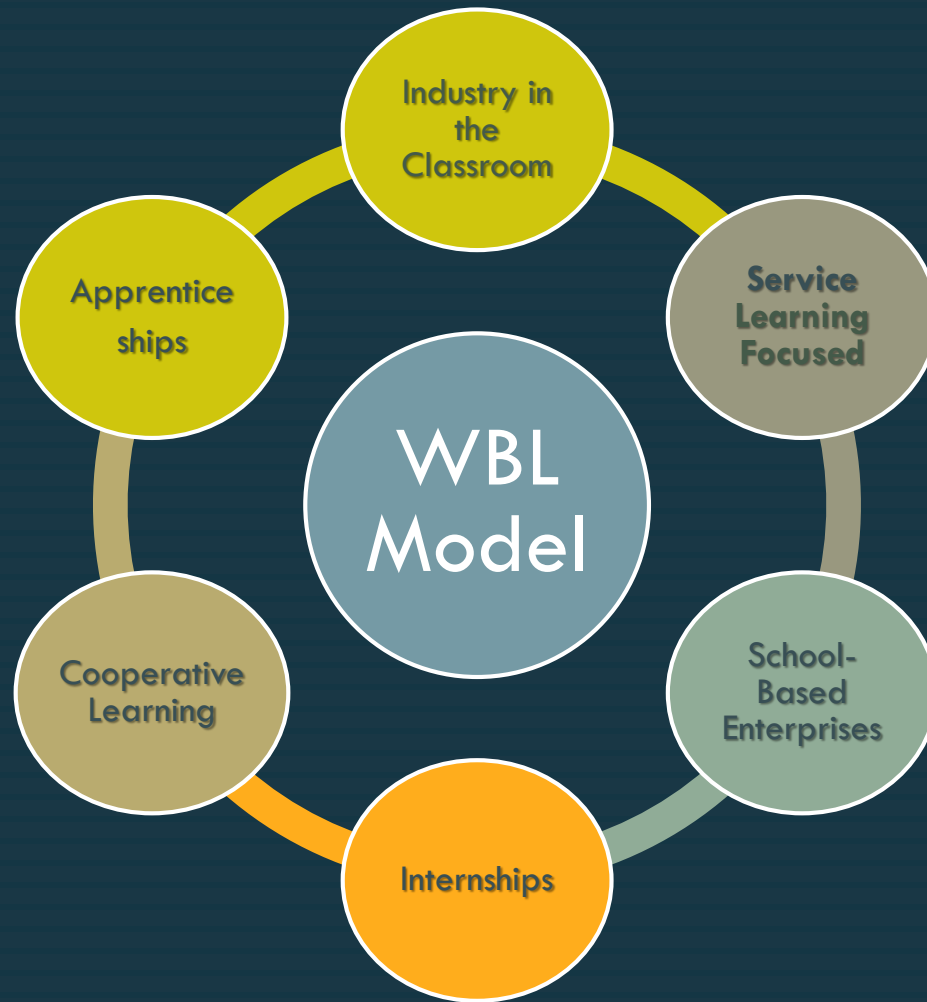
SECONDARY	Grade	English/ Language Arts	Math	Science	Health/PE Social Studies	CTE/Career Preparation Courses for this Pathway		Other Elective Courses for this Pathway	
	9	English 9	Algebra I	Biology	Health & Wellness/ Physical Ed	Preparing for College & Careers;		Digital Citizenship, Personal Financial Responsibility	World Language
	10	English 10	Geometry	Chemistry	Geography/History of the World or World History/Civilization	Introduction to Advanced Manufacturing & Logistics	Computers in Design & Production or Intro to Engineering Design or Principles of Engineering		World Language
	11	English 11	Algebra II	3 <sup>rd</sup> Core 40 Science	US History	** Advanced Manufacturing I			World Language
	12	English 12	Math or Quantitative Reasoning		Government Economics	** Advanced Manufacturing II			Fine Arts
State specified Pathway Assessment: Dual credit assessment from Ivy Tech or Vincennes University or MSSC assessment (all 4 exams)									
Industry Recognized Certification: MSSC									

### Postsecondary Courses Aligned for Potential Dual Credit\*\*

\*\*See individual Course Frameworks for alignment of high school course standards and postsecondary course objectives

Ivy Tech Community College	Vincennes University
ADMF 101 Key Principles of ADMF ADMF 102 Technology in ADMF ADMF 113 Electrical and Electronic Principles for Manufacturing ADMF 116 Automation & Robotics in Manufacturing ADMF 103 Graphic Communications for Manufacturing	CIMT 100/L Electronics for Automation CIMT 125/L Intro to Robotics and Automation PMTD 110/L Manufacturing Processes

# WORK BASED LEARNING MODEL



# WORK BASED LEARNING PROGRESSION





# THE PATH TO COLLEGE AND CAREER READINESS



# INDIANA COLLEGE & CAREER PATHWAYS

- Indiana's Career Clusters = 12
- Indiana's College & Career Pathways = over 60 state-level models for schools to customize and students to individualize
- Pathway plan template can be used by all students in all subject areas (Liberal arts, STEM/Sciences, Humanities, etc.)
- Responsive to regional interests and needs
- Continue responsiveness to business & industry needs and emerging careers
- Continue data-driven decisions with wage/demand data from Bureau of Labor Statistics
- Continue to provide a path to success in advanced training as well as certifications and direct entry into the labor market

# CLUSTERS & PATHWAYS

□ Questions?



# Expansion of Work Based Learning

- Review Draft of Work-Based Learning Toolkit
- Highlights from Potential Rollout Plan
  - March 4<sup>th</sup> Biocrossroads event
  - March 25<sup>th</sup> Million Women Mentors event
  - Works Councils meetings (connecting with local chambers)
  - Indiana Chamber (BizVoice)
  - CTE Director community
  - IYI Postsecondary Counseling Institute in June
  - Local school organizations and clubs (through CTE and otherwise)

# Expansion of Work-Based Learning

## Data Collection:

- Information from K-12
  - Work-based learning CTE courses
  - Other
- Information from Higher Ed based upon credits for internships
  - Working on data collection to start in the fall 2015
  - Data team would like to be in on conversation about what data is needed
- Information from Indiana INTERNnet
  - Have some data, but employers/students often make initial connection through Indiana INTERNnet and then go outside network to establish relationship
- Indiana Chamber employer survey and utilizing Burning Glass technologies to scan internet for opportunities?

# Update on initiatives 4 and 5

- Determining a statewide sector strategies framework may be informed by local initiatives currently in development.
  - Currently the Works Councils are working through the EWIN project on a 3-stage approach to implementing each region's action plan. Some regions will focus on developing sector partnerships and associated pathway development (see handout).
    - Example in Region 9: career pathways logic model for advanced manufacturing

# EWIN Regional Technical Assistance

## STAGES

## EWIN Technical Assistance

## TIMELINE

### STAGE 1

#### Analysis

#### Initial Review

##### *Landscape Review*

Working with Thomas P. Miller & Associates, CELL will conduct a landscape review in order to identify existing efforts and overlooked assets within each region. This review is intended to provide an overview of education-workforce efforts at the regional level, which may inform future partners and strategies for the Works Council moving forward.

Jan. - April  
2015

### STAGE 2

#### Training/ Capacity Building

#### Process-Based Assistance

##### *Coalition Building Training*

CELL will contract with the Coalition Building Institute to provide trainings and support to the regional Works Councils. This technical assistance will help each Works Council be positioned as a “back-bone” component for regional education-workforce efforts by appropriately identifying and coordinating existing assets.

April - Dec.  
2015

### STAGE 3

#### Support/ Professional Development

#### Outcome-Based Assistance

##### *Sector Partnership Development*

CELL and partners will assist Works Councils in initiating development of Sector Partnerships. The level and type of support provided will be developed in coordination with each Works Council.

##### *Pathway Development*

CELL and partners will assist Works Councils in creating a series of clearly articulated educational pathways. The level and type of support provided will be developed in coordination with each Works Council.

##### *Other*

As each region in Indiana is unique and various initiatives are already underway, CELL will work with each Works Council to provide further or alternative support on an “as needed” basis.

June - Dec.  
2015



CENTER OF EXCELLENCE  
IN LEADERSHIP OF LEARNING